RELATIONSHIP OF KNOWLEDGE AND ATTITUDE OF PREGNANT WOMEN TO ANTENATAL CARE EXAMINATIONS DURING THE COVID 19 PANDEMIC

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ABSTRACT

Pregnancy is a process that will be experienced by every woman. The Maternal Mortality Rate (MMR) in Indonesia is still quite high, one of the efforts made to reduce the MMR in Indonesia is the Antenatal Care (ANC) examination program. The Covid-19 pandemic has changed the status of life around the world suddenly, causing a very large psychological burden, especially for pregnant women. ANC services during the current Corona Virus Disease 2019 (Covid-19) pandemic will certainly be greatly affected and at risk of experiencing a decline. pregnancy care visits. This study aims to determine the relationship between the level of knowledge, attitudes and behavior of pregnant women towards antenatal care examinations during the COVID-19 pandemic in the Public Health Center of Modoinding. This type of research is an analytic survey with a cross sectional approach, the sampling technique is using purposive sampling, the number of samples is 50 respondents. The research data was obtained through a questionnaire of knowledge, attitudes and behavior of pregnant women about antenatal care and then analyzed using the Chi Square test with Cl = 95% and $\alpha = 0.05$. The results of statistical tests showed that there was a relationship between the behavior of ANC examination visits and the knowledge and behavior of pregnant women, while related to attitudes, there was no relationship between the behavior of ANC examination visits and attitudes. In conclusion, there is a relationship between knowledge and behavior of pregnant women in ANC examination, and there is no relationship between behavior of ANC examination visits and attitudes of pregnant women in ANC examination in the Public Health Center of Modoinding.

Keywords: antenatal care; attitude; behavior; covid 19; knowledge

INTRODUCTION

Pregnancy is a process that will be experienced by every woman. Maternal physiological changes during pregnancy, childbirth, postpartum, and neonate can turn pathological, this arises due to many factors that can influence it, including viral infections. According to the 2018 WHO report, the Maternal Mortality Rate (MMR) in the world is 289,000 people. The United States is 9,300 inhabitants, North Africa 179,000, and Southeast Asia 16,000. The maternal mortality rate in Southeast Asian countries is Indonesia 214 per 100,000 live births, Philippines 170 per 100,000 live births, Vietnam 160 per 100,000 live births, Thailand 44 per 100,000 live births, Brunei 60 per 100,000 live births, and Malaysia 39 per 100,000 live births (WHO, 2018). According to the Indonesian Ministry of Health in 2019, the maternal mortality rate in Indonesia was recorded in 2016 as many as 400,000 mothers died every month, and 15 mothers died every day with the highest cause of death 32% due to bleeding, 26% due to hypertension. Other accompanying causes such as hormonal, cardiovascular and infection factors.

From the factors causing death, early detection and treatment can be carried out to prevent death from occurring. According to Susanto, Ahmad & Ismail (2016) one of the efforts made to reduce MMR in Indonesia is the Antenatal Care (ANC) examination program which is mandatory for pregnant women. According to Kusuma (2019), Antenatal Care (ANC) is a planned program in the form of observation, education and medical treatment for pregnant women, to obtain a safe and satisfying pregnancy and delivery process. The Covid-19 pandemic

has greatly changed the status of life around the world. All of these sudden changes pose a huge psychological burden for all individuals and especially for pregnant women who are now facing pregnancy with more anxiety and uncertainty than ever (Angeliki Antonakou, 2020). Pregnant women are expected to stay at home as much as possible to maintain the health of their fetuses during the pandemic, except for going out for routine checks to the hospital, for pregnant women with low risk of pregnancy to have a pregnancy check at least six times, i.e. under three months, the second trimester around seven months , and over seven months until delivery (Kathleen, 2020).

ANC services during the current Corona Virus Disease 2019 (Covid-19) pandemic will certainly be greatly affected and at risk of experiencing a decrease in pregnancy service visits. The application of ANC visit behavior according to the protocol is certainly greatly influenced by the knowledge of pregnant women about ANC during the pandemic. During the COVID-19 pandemic, which hit almost all parts of Indonesia, the level of visits to health facilities (Faskes) decreased quite drastically. Based on data from the Task Force for the Acceleration of Handling COVID-19 as of September 14, 2020, the number of patients in the group of pregnant women, there were 4.9% of pregnant women who were confirmed positive for COVID-19 from 1,483 confirmed cases that had data on accompanying conditions. These data indicate that pregnant women, childbirth, postpartum and newborns are also vulnerable targets for COVID-19 infection and this condition is feared to increase maternal morbidity and mortality.

The Health Profile of the Regional Health Office of North Sulawesi Province in 2018 stated that there were several reports of cases of pregnant women who were positive for COVID-19. Based on medical record data starting from July - September 2020, it was found that 26 third trimester pregnant women who were positive for SARS-CoV-2. 26 pregnant women had received treatment at the Central General Hospital (RSUP) Prof. Dr. R.D. Kandou Manado. A total of 22 patients (85%) had normal ALC levels, while the other four patients (15%) had decreased Absolute Lymphocyte Count (ALC). Other researchers also said that based on data from the Tikala and Ranomuut Health Centers there were 155 confirmed cases of COVID-19 out of these 155 cases, there were around 2 pregnant women who were suspected COVID-19 cases who had been referred to the hospital (Nelwan & Musa, 2020). The data above shows that the health status of pregnant women in North Sulawesi has been disrupted due to the emergence of COVID-19. Based on the description above, the researcher is interested in conducting research on "the relationship of knowledge, attitudes and behavior of pregnant women to Antenatal Care Examinations during the Covid-19 Pandemic" in Public Health Center of Modoinding, South Minahasa.

METHOD
This study used an observational analytic design with a cross-sectional approach. Where in this study only measurements were made once or momentarily or retrospectively. The population in this study were all 85 pregnant women. The sample in this study amounted to 50 people. This research was carried out in the Public Health Center of Modoinding, the sampling technique was using purposive sampling. The research sample was spread over 10 (ten villages) with 5 pregnant women in each village, namely: Mokobang Village, Wulurmaatus Village, Makaaroyen Village, Palelon Village, Kakenturan Village, West Kakenturan Village, Sinisir Village, Linelean Village, Pinasungkulan Village and Pinasungkulan Village North.

The variables in this study are a description of the relationship between knowledge, attitudes and behavior of pregnant women towards antenatal care examinations during the covid 19 pandemic. The data collected in this study were primary data with questionnaires distributed

through the whatsapp group and a list of questions filled out via google form. The data that has been collected is checked again for accuracy and completeness of the data, then processed through a computer program. The data is presented in the form of a frequency distribution. Data analysis in this study was univariate. Univariate analysis was carried out to find out and get results on the description of knowledge, attitudes and behavior of pregnant women towards antenatal care examinations during the COVID-19 pandemic.

RESULTS

Table 1.
Respondent characteristics (n= 50)

Respondent characteristics	f	%
Age		
11-19 yo	7	14
20-50 yo	43	86
Gestational Age		
1st Trimester	12	24
2nd Trimester	22	44
3rd Trimester	16	32
Education		
Elementary School	5	10
Junior High School	19	38
Senior High School	23	46
College	3	6
Occupation		
Civil Servant	1	2
Private Employee	10	20
Housewife	39	78
Number of Pregnancies		
Primipara	12	21
Multipara	38	79
Pregnancy Check Up		
Midwife	7	14
Public Health Center	41	82
Obstetrician	2	4

Based on the respondent's characteristic data, it shows that the most age category of pregnant women at the age of 20-50 years is 86%, gestational age in the second trimester is 44%, the last education is high school as much as 46%, housewife work is 78%, multipara is 79% and pregnancy check up is public health center is 82%.

Table 2.
Distribution of Respondents by Knowledge of Pregnant Women on Antenatal Care Examinations (n= 50)

Knowledge	f	%
Good	50	100
Poor	0	0

Based on table 2, it can be explained that 100% of pregnant women have good knowledge of the ANC examination.

Table 3.
Distribution of Respondents According to Attitudes of Pregnant Women to Antenatal Care
(n= 50)

Attitude	f	%
Good	46	92 %
Poor	4	8 %

Based on table 3, it can be explained that the frequency distribution of respondents according to the attitudes of pregnant women towards ANC examinations is mostly good attitudes, as many as 46 respondents or 92%.

Table 4.
Distribution of Respondents by Behaviour of Pregnant Women on Antenatal Care (n= 50)

Behaviour	f	%
Good	50	100
Poor	0	0

Based on table 4, it can be explained that 100% of pregnant women have good behavior of the ANC examination.

Table 5.
Distribution of Respondents for ANC Visits to Pregnant Women on Antenatal Care (n= 50)

Antenatal Care	f	%
Regular	41	82 %
Irregular	9	18 %

Based on table 4, it can be explained that the frequency distribution of respondents who made ANC visits the most were those who regularly visited as many as 41 respondents or 82%.

Table 6.
Relationship between knowledge of Pregnant Women and Antenatal Care Visits (n= 50)

Knowledge	Antenatal Care Visits				P Value
	Regular		Irregular		
	f	%	f	%	0,007
Good	41	82	9	18	
Poor	0	0	0	0	

The results of data analysis in table 6 show that respondents with good knowledge of regular ANC visits are 50 respondents with a percentage (100%). Based on the results of statistical tests using Chi-Square, obtained p value = 0.0076. This means that the p value is smaller than the value of ($\alpha = 0.05$), so it can be concluded that there is a relationship between knowledge and ANC visits in the Public Health Center of Modoinding, South Minahasa.

Table 7.
Relationship between attitude of Pregnant Women and Antenatal Care Visits (n= 50)

Attitude	Antenatal Care Visits	P Value
	Regular Irregular	

	f	%	f	%	0,137
Good	41	82	5	10	
Poor	0	0	4	8	

The results of data analysis in table 7 show that from 50 respondents, that respondents with a good attitude and regularly visited ANC were 41 respondents with a percentage (82%). Meanwhile, respondents with poor attitudes who do not regularly make ANC visits are 5 respondents with a percentage (10%). Based on the results of statistical tests using Chi-Square, the p value = 0.1370 was obtained. This means that the p value is greater than the value of (α = 0.05), so it can be concluded that there is no significant relationship between attitudes and ANC visits in the Public Health Center of Modoinding, South Minahasa.

Table 8.
Relationship between behaviour of Pregnant Women and Antenatal Care Visits (n= 50)

Behaviour			Antenatal Care Visits		P Value
	Regular		Irregular		
	f	%	f	%	0,007
Good	41	82	9	18	
Poor	0	0	0	0	

The results of data analysis in table 8 show that from 50 respondents, that respondents with good behavior amounted to 41 respondents with a percentage (82%). Meanwhile, respondents with poor attitudes who did good prevention amounted to 9 respondents with a percentage (18%). Based on the results of statistical tests using Chi-Square, obtained p value = 0.007. This means that the p value is smaller than the value of (α = 0.05), so it can be concluded that there is a significant relationship between behavior and ANC visits in the Public Health Center of Modoinding, South Minahasa.

DISCUSSION
Relationship between knowledge of Pregnant Women and Antenatal Care Visits
Based on the results of statistical tests using Chi-Square, obtained p value = 0.007. This means that the p value is smaller than the value of (α = 0.05), so it can be concluded that there is a significant relationship between knowledge of pregnant women and ANC visits in the Public Health Center of Modoinding, South Minahasa. This is in line with research conducted by Gobel., et al (2021) related to "The Influence of Knowledge and Attitudes on Obedience of Pregnant Women in ANC Examination During Pandemic Periods at Poskesdes Bungadidi Kec. Tana Lili". From the results of the study, it was concluded that there was a relationship between knowledge and adherence of pregnant women to ANC examinations during the pandemic (p = 0.000). This is in line with research conducted by Azizah 2021 which examined the relationship between attitudes and knowledge of pregnant women and antenatal care during the Covid-19 pandemic, explaining that there was a significant relationship between the level of knowledge and K4 visits to pregnant women. in the public health center of Duren Semarang (p=0.008). The results of this study are also in line with the results of research conducted by Mahmud et al., (2021) regarding "The Relationship of Knowledge and Attitudes of Pregnant Women with the Effectiveness of ANC Visits During the Covid-19 Pandemic" which states that there is a relationship between knowledge of pregnant women and the effectiveness of ANC visits during the COVID-19 pandemic. Covid-19 pandemic at the Tamalanrea Public Health Center (p=0.028). However, this is not in line with the research conducted by Ratu Kusuma (2018) on "The Relationship of Knowledge and Attitudes of Pregnant Women About Antenatal Care With K4 Visits" which explains that there is no significant relationship between knowledge of

pregnant women about ANC and K4 visits in the region. Talang Bakung Public Health Center in Jambi City (p=0.678).

A person's knowledge can be influenced by many things, one of which is education. Knowledge is closely related to education, which means that if a person has a high education, his knowledge will also be high. Knowledge is one of the important things to pay attention to because it will affect a person in determining and making decisions on a problem at hand (Nisma et al, 2021). Good knowledge can improve health status, therefore it can be concluded that with good knowledge pregnant women can make regular ANC visits.

Relationship between attitude of Pregnant Women and Antenatal Care Visits
Based on the results of statistical tests using Chi-Square, obtained p value = 0.13. This means that the p value is greater than the value of ($\alpha = 0.05$), so it can be concluded that there is no meaningful relationship between the attitudes of pregnant women and ANC visits in the Public Health Center of Modoinding, South Minahasa. This is in line with research conducted by Kusuma (2019) regarding "The Relationship of Knowledge and Attitudes of Pregnant Women About Antenatal Care With K4 Visits" which states that there is no significant relationship between attitudes of pregnant women about ANC and K4 visits in the working area of the Talang Bakung Public Health Center Jambi City (p = 0.417) .

This study is also in line with the results of research conducted by Sumarni (2014) who in his article stated that there was no relationship between the attitudes of pregnant women about the danger signs of pregnancy, childbirth, and postpartum to ANC behavior (p = 0.062). However, the results of this study are different from the research conducted by Nisma, et al (2021) which explained that there was an influence of attitude on the achievement of ANC examination at Poskesdes Bungadidi, Tana Lili District (p = 0.010). The results of this study indicate that there is no significant relationship between the attitudes of pregnant women and ANC visits during the COVID-19 pandemic in Public Health Center of Modoinding, South Minahasa. This may be influenced by characteristic factors, because most mothers are at a safe age or not at risk for pregnancy. The work factor as a housewife allows mothers to have a lot of time to check their pregnancy. Multigravida and multipara factors may be the reason for mothers to continue to visit pregnancy because they already have experience in previous pregnancies. In addition, the majority of mothers have an examination at the public health centre, which is a strong reason for mothers to continue to have their pregnancy checked. So it can be concluded that a bad attitude keeps ANC visits on a regular basis.

Relationship between behavior of Pregnant Women and Antenatal Care Visits
Based on the results of statistical tests using Chi-Square, obtained p value = 0.007. This means that the p value is smaller than the value of ($\alpha = 0.05$), so it can be concluded that there is a meaningful relationship between the behavior of pregnant women and ANC visits in Public Health Center of Modoinding, South Minahasa. This is in line with the research conducted by Refiani et al (2021) on "Description of the Behavior of Pregnant Women in Performing Antenatal Care during the Covid-19 Pandemic at the Sidomulyo Inpatient Health Center, Pekanbaru City" whose research results show the behavior of pregnant women in performing ANC during the COVID-19 pandemic. 19 of them are positive behavior. Based on research by Ariestanti et al., (2020) most pregnant women regularly visit ANC during the COVID-19 pandemic. The compliance of pregnant women during ANC can occur if they are aware of the benefits based on good health behavior during a pandemic by applying the ANC guidelines that have been set by the Ministry of Health.

Preventive behavior is basically a person's response to stimuli related to illness and disease, the health care system, eating and the environment (Nursalam & Efendy, 2008). Good behavior of pregnant women towards ANC visits, will make mothers better understand the importance of maintaining health and applying it in daily life (Ariestiyawati, et al 2018). With the formation of positive behavior about the importance of conducting ANC visits, pregnant women can carry out routine pregnancy checks in order to monitor the condition and development of the fetus (Ariestanti et al., 2020).

CONCLUSIONS

Based on the results of research conducted on the relationship between knowledge, attitudes and behavior of pregnant women with ANC visits in the Public Health Center of Modoinding, South Minahasa, it can be concluded that the knowledge, attitudes and behavior of pregnant women with ANC visits are in good category. There is a significant relationship between knowledge and behavior of pregnant women and ANC visits in Public Health Center of Modoinding, South Minahasa Minahasa. There is no significant relationship between the attitudes of pregnant women with ANC visits in Public Health Center of Modoinding, South Minahasa.

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